

BSC 2085LV – Anatomy & Physiology Virtual Lab

Course Reference #: BSC 2085L -V- ____ ____ ____

COURSE DESCRIPTION:

This is the lab component for BSC2085. Lab topics include microscopy, cells, histology, the integument, and the skeletal, muscular, and nervous systems. It complements the lecture portion of this course, BSC2085.

PREREQUISITE: Students must score into college level mathematics and reading on placement tests.

COREQUISITE: BSC2085

COURSE RATIONALE:

BSC2085L focuses on the communicating major anatomical and physiological concepts and relate how these are connected within various areas of the biological sciences. Through several exercises, learners will demonstrate how they achieved objectives of the course. Mastering both the knowledge and skills presented in this course will help to prepare the learner with a sound approach and understanding of human anatomy and physiology applicable in the health field. Students will learn major biological concepts and relate how these are connected within various areas of the biological and physical sciences in a laboratory setting. Students will apply critical thinking skills to provide the foundation for lifelong learning and career development.

This course is divided into modules that cover concepts such as microscopy, cell structure, cell life cycle, body terminology, histology, and various human body systems.

- **Module 1** is an introduction to the lab which includes safety and lab policies. **Module 2** then discusses body terminology, movement terms and various concepts relating to Anatomy & Physiology. **Module 3** will cover microscopy, cell structure and function as well as the cell life cycle.
- **Module 4** will cover the first system of the semester which is the Integumentary System. This system will include being able to identify the tissue that makes up this system. Also, being able to identify and describe the structures and functions of the Integumentary System.
- **Module 5** will be centered around the next body system for the semester which is the Skeletal System. Students will be responsible for identifying the tissues that make up this system and identifying and describing the structures of the Skeletal System. There will also be a focus on articulations (joints) in **Module 5**.
- **Module 7** covers the Muscular System. While students will focus on muscles used for body movements, students will also be identifying the various muscle tissues found in the human body. Students will be identifying the muscles for body movements and will also need to discuss the various movements of these muscles.
- **Modules 8 & 9** are the final modules. **Module 8** covers the Nervous System while **Module 9** covers Special Sense organs (Eye and Ear). There are various organs involved in this system

and students will be responsible for identifying various structures and functions of the different parts of these organs.

COURSE LEARNING OBJECTIVES:

At the completion of this course, the student will be able to:

- Identify the structures of human cells and describe their function;
- Identify human tissues with respect to their structure, specific locations in the human body, and normal physiology;
- Identify and describe the structure and function of the components of the integumentary, muscular, skeletal and nervous systems;
- Describe the importance of the maintenance of homeostasis in the body;
- Contrast normal and abnormal functioning of these body systems, emphasizing particular pathological problems.

REQUIRED TEXT/ MATERIALS:

As this is an online course, it is expected enrolled students will have a working computer and access to the internet.

- BSC2093L Anatomy & Physiology I Digital Laboratory Manual Access Code 3rd ed., 2019; ISBN 978-15339-4202-9
 - Contact the IRSC bookstore to purchase at: <https://www.bookstore.irsc.edu>
- VISIBLE BODY'S VIRTUAL ANATOMY PHYSICAL ACCESS CODE, 1st ed
 - Contact the IRSC bookstore to purchase at: <https://www.bookstore.irsc.edu>

TENTATIVE SCHEDULE:

The course schedule with associated assignments will be located in the 'Schedule of Activities' in the course control panel in Blackboard. Below is a tentative outline of activities:

Week(s)	Lab Topic	Required* Lab Manual Readings
1	Introduction	Pgs. i-x
2	Medical Terminology/ Body Systems	Pgs. 13-36
3	Microscope; Cell Structure; Cell Cycle	Pgs. 1-12
4-5	Integument Histology; Integumentary System	Pgs. 37-66
6-7	Bone Histology; Skeletal System; Articulations	Pgs. 67-136
8	Practical 1 (Terminology, Cells, Integumentary and Skeletal System)	

9-10	Muscle Histology, Muscular System	Pgs. 137-170
11-12	Nervous Histology, Nervous System	Pgs. 171-194
13-14	Special Senses-The Eye and Ear	Pgs. 195-212
15	Thanksgiving Break-No Classes	
16	Practical 2 (Muscular System, Nervous System, Special Senses)	

TECHINICAL REQUIREMENTS:

1. IRSC Rivermail

Students must be able to log into IRSC's email system, Rivermail, every 48 hours (or two days) to see if there are updates regarding your course. You can forward your Rivermail to any other mail system, but YOU are responsible for this system to be reliable. Failure to check your email may result in missed information essential to your course success.

2. IRSC Computer Requirements

Students must have a reliable computer and Internet connection throughout the course. Quick links to the Indian River State College's Blackboard Technical Information can be found in the Institutional Resources section in Blackboard. Quick links include:

- Essential Technical Skills Checklist
- Browser Support
- Blackboard Learn Mobile

3. Blackboard Learning Management System (LMS)

If you need assistance with Blackboard, please review the Blackboard Help Videos by clicking on the link provided on the course menu.

Note: The preferred browsers are Google Chrome and Mozilla Firefox.

Blackboard LOG IN:

USERNAME: Student ID number (no dashes)

PASSWORD: IRSC web registration/pay pin

Technical Support: If you can't find your answer within the Blackboard Help Videos section, visit the [Blackboard Help Center](#) or you can email GlobalStudent@irsc.edu, call 772-462-7480 or email the help desk helpdesk@irsc.edu.

CONTACT INFORMATION:

When questions arise during this course, please remember to check these three sources for an answer:

1. Course Syllabus;
2. Announcements in Blackboard; and
3. Schedule of Activities

If you have questions of a personal nature such as relating a personal emergency, questioning a grade on an assignment, or something else that needs to be communicated privately, please contact the instructor via email and/or Course Messages. Please allow 24/48 hours for the instructor to respond. You can find your instructors email on our Weebly site:

Biology Faculty: <http://biology-irsc.weebly.com/full-time-faculty---websites-and-office-information.html>

Adjunct Faculty: <http://biology-irsc.weebly.com/find-adjunct-faculty-and-tlss.html>

Technical Lab Specialist (TLS): <http://biology-irsc.weebly.com/find-adjunct-faculty-and-tlss.html>

On Day 1 of your lab class, your Instructor will introduce themselves as the **Instructor of Record (IOR)** for this course. **Please write their name and contact information above** (both can also be found with the links provided). The IOR is responsible for the selection of experiments and exams developed and approved by Biology Department Faculty, approves all assignments, and assigns the student's grade for the course. In addition to the IOR, a **Technical Lab Specialist (TLS)** may also assigned to this course. The role of the **TLS** is to facilitate the performance of the assigned experiments within the laboratory setting. The **TLS** also assists with the grading of assessments under the direction of the course instructor and other biology faculty. If you have any questions or concerns, please first try to work with the course **TLS/IOR**. If the issue cannot be resolved, Lab Coordinator Sarah Rodgers (772-462-7149, srodgers@irsc.edu) is also available to assist. **Any correspondence must include the student's name and course reference number.** The IOR/TLS/Coordinator will generally respond to the student within 2 business days (*note: failure to include **name and reference number** in initial correspondence, may result in delayed to no response*). The IOR reports the grade the student earns over the course of the semester and will issue any incompletes (I) or withdrawals (W) that are needed.

GRADES:

The final course grades are based on the following categories:

- Visible Body assignments: 212 pts
- Two Discussion Board posts (20 pts each): 40 points
- Two Practical Exams (100 pts each): 200 points

Total points: 452

Course grades are assigned on the following:

A: 90% - 100%

B: 80% - 89%

C: 70% - 79%

D: 60% - 69%

F: below 60%

Students must keep up with their grades on assignments/exams over the course of the semester. Grades posted in Blackboard are not final and may need adjustment throughout the semester (due to miscalculations, typo, or programming error) and will be recalculated accordingly if needed. It is the student's responsibility to monitor their own grade and also to approach the instructor for academic support/suggestions if the student is not earning the grade they desire or sees any discrepancy with what is posted on Blackboard. **Instructor contact must be administered in a timely manner**, as last minute concerns cannot be addressed or remedied, nor can they positively impact final grades.

Your instructor may choose to go over the test in class or may only offer review outside of lab class time, but you always have the ability to request to view your test grade although your test itself will remain in the instructor's possession.

*****No extra credit projects will be granted and there are no homework points for this course; your grade is entirely made up of the three Practical Exams (none of which will be dropped) and weekly Blackboard Quizzes.***** *Schedule your work, activities, and personal needs around these SET DATES as there is no ability to catch up as labs are changed over weekly and cannot be "re-set-up."*

W = student withdraw by Monday, Oct. 25th I = incomplete for passing students only in EXTREME cases
which *must be approved by the IOR*

If a student withdraws from the course, the student must email both the TLS and IOR. The IOR will respond with a confirmatory email that the student has been withdrawn. This is to minimize the number of Instructor Withdrawals (WI) that are requested after final grades are posted. Requests for Instructor Withdrawal (WI) after the student has taken the final exam are prohibited, thus if you are concerned about your grade and it is past the Student Withdrawal date, you need to discuss this with your Instructor prior to taking the final exam in the semester.

ASSIGNMENTS/QUIZZES:

Students are responsible for knowing their exact dates and times of their assignments and quizzes as listed in the **Schedule of Activities**. **The schedule will be located in the Schedule of Activities link in the course control panel.**

EXAMS:

Students are responsible for knowing their exact dates and times of their Exams listed in the Schedule of Activities. These Practical Exams are set to open and close at specific times, thus you will NOT be allowed for Late Submission, *even if it's 30 seconds*, **so plan accordingly**. This is to ensure all students have a fair and equal testing experience. Exams will be **timed** station-based practical's in which the students will view parts of the experiments they conducted in the weeks prior and will be expected to answer questions pertaining to that specific lab. Students will not be able to return to a question and the test will be timed so you are not able to Google or look up the answers or you will run out of time. Just like a Face-to-Face practical, you will need to know the material by memory to be able to complete

the exam in the time allotted. Make-up dates are available for this course **ONLY if the absence is approved by the DEPARTMENT CHAIR** (see “Make-up Policy” below).

LATE SUBMISSION POLICY:

Not permitted. This course is laid out so you have plenty of time to complete each weekly module and weekly due dates are to teach you time management skills. It is YOUR RESPONSIBILITY to manage your time so you are not in the situation that you need to submit work late.

OPEN LAB POLICY:

Not permitted during limited campus access during Covid-19 pandemic.

EXTRA CREDIT:

No extra credit is given.

ELECTRONIC DEVICES:

All electronic communication devices are prohibited during Exam Practical's. Cell phones must be set on *silent* or *off* during any collaborate live discussion session. Your Practical's will be proctored so any student who uses a cell phone to make or answer a call, or send and/or read text messages or emails during one of these sessions may be asked to leave, and if testing will be considered cheating (see details below).

CHEATING/PLAIGURISM:

Cheating of ANY kind **WILL NOT** be tolerated by this Department or the College. Anyone caught cheating will automatically receive a minimum of a zero for that assignment/test. Any further episodes will result in an F in the class. Anyone who witnesses this inexcusable behavior and does not report it is also considered to be guilty of improper conduct.

Please review IRSC's policy on Plagiarism: <https://irsc.libguides.com/copyright/plagiarism>

MAKE-UP POLICY:

Students must attend class and take all exams in the course reference number they are registered in. If a student misses a Practical Exam window they must contact a Department Chair (Dr. Robin Willoughby rwilloug@irsc.edu or Dr. Jennifer Capers jcapers@irsc.edu) **within 24 hours of the schedule exam time** with a verifiable emergency. Any correspondence must include the **student's name and full course reference number.** Instructor's, Faculty or Lab Coordinator's cannot approve a student to take a make-up exam. Students whom miss more than one exam, regardless of reason, will be withdrawn from the course. If a student misses or cannot connect to take their “approved” make-up exam time window, the student's academic status will determine if the IOR will assign a “WI” Instructor Withdrawal or “I” Incomplete grade for the course. If awarded an “I” the student will be required to return to make up the exam the following semester. Please NOTE: Make-up exams are standardized test and are generally more difficult as they are not written by the student's particular instructor. If a student

misses the last exam, they must contact the instructor **within 24 hours of the schedule exam time** with a verifiable emergency. Only with an approved verifiable emergency via the IOR, and only if they are currently passing the course, will a student be eligible to receive an incomplete (I) for the course. If a student is not passing the course prior to the last exam, the missed final will count as a score of zero "0" as described above and will be used in calculations of the students final earned letter grade in the course.

If awarded an Incomplete "I" the student must find an instructor's class that fits their schedule to following semester, email that instructor for permission to attend his/her Exam # and also email/contact their original instructor to convey this information. Schedule and instructor contact info can be found on <http://biology-irsc.weebly.com>. Failure to do so before the end of the subsequent semester will result in their missed exam counting as a zero "0" and will be included their final grade in the course.

ADDITIONAL RESOURCES:

Biology website: <http://biology-irsc.weebly.com> is a resource that list Biology faculty, instructor, and staff contacts, provides information on all offered courses, lists information on both the AA and BS guided pathways as well as other information.

Library: The Miley Library serves as IRSC's main library. A library is an information place providing professional assistance, library books and media, and access to the library's electronic resources. Each branch campus also has a library. Additionally, there is an extensive online database system also available through IRSC's website as well as useful libguides on plagiarism, citations, and more. <https://irsc.libguides.com/c.php?q=824505> and www.irsc.edu

Tutoring: If the student is not earning the grade, they desire then it is the student's responsibility to contact the instructor for academic support/suggestions. In addition to receiving instructor help, please utilize the following services. Tutoring is provided by the IRSC ASCs. It's free! The ASC has also made virtual tutoring. <https://irsc-asc.weebly.com/> Additionally, you can receive tutoring through the "SmartThinking" link on Blackboard. Use it!

STUDENT ACCESSABILITY SERVICES:

Indian River State College provides reasonable accommodations to students with documented disabilities through the Student Accessibility Services (SAS) Office. The rights of students with disabilities which pertain to post-secondary education are provided under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. Students who wish to request an accommodation for a documented disability may contact Student Accessibility Services at 772-462-7808, 772-462-7782 or e-mail accessibilityservices@irsc.edu. The ***Student is responsible to inform the instructor at the beginning of the semester*** so lab managers, staff, and the instructor have ample time to prepare any testing accommodations that will be needed. Extended Exam testing will be offered the same week as the students regularly scheduled practical, on Friday's @ Main Campus only. If this timeframe/location conflicts with the student's schedule, they will need to discuss alternatives with their specific instructor and confirm a new timeframe/location with the Lab Manager of that respective campus, at minimum two weeks prior to the first practical.

NON-DISCRIMINATION AND HARRASSMENT POLICY:

Indian River State College and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. IRSC does not discriminate on the basis of race, color, national origin, ethnicity, sex (pregnancy), religion, age, disability, sexual orientation, marital status, veteran status or genetic information in its programs and activities. If you have encountered any form of discrimination or harassment, including sexual misconduct (e.g. sexual assault, sexual harassment, stalking, and domestic or dating violence), we encourage you to report this to the Title IX Coordinator. If you report such an incident of misconduct to a faculty member, that faculty member is required by law to notify the IRSC Title IX Coordinator. The following person has been designated to handle inquiries regarding non-discrimination and non-harassment policies: Adriene B. Jefferson, Equity Officer and Title IX Coordinator, 3209 Virginia Avenue, Fort Pierce, FL 34987; IRSC Main Campus, W Building, Room 207; (772)462-7156; ajeffers@irsc.edu.

STATEMENT TO STUDENTS:

If you are having trouble in your course, **your first obligation is to work directly with your instructor to resolve the issue**. If you are unable to settle your concerns with the assistance of your instructor, you should contact your Instructor of Record (IOR). If issues are not addressed, you may contact the Department Chair (Dr. Robin Willoughby, 462-7498), or the Assistant Dean (Dr. Anthony Dribben, 462-7503) who will assist you or advise you and if necessary help you contact the Vice President (Dr. Heather Belmont, Vice President of Academic Affairs, 462-7215).

SYLLABUS DISCLAIMER:

Syllabus Disclaimer: The instructor views the course syllabus as an educational contract between the instructor and students. Every effort will be made to avoid changing the course schedule, but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified promptly of any syllabus changes in the course Announcements or course e-mail.